

PATENT
512425-2070AMENDMENT TO THE CLAIMS

Please enter the following amendments to the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

Claim 1 (currently amended)

1. A process for producing an aluminum or an aluminum alloy metal foam in a die-casting machine comprising a shot-sleeve and a die cavity which ~~comprises~~ comprises:
 - (i) a die-casting step foaming a mixture comprising
 - (a) introducing at high pressure an aluminum or an aluminum alloy metal melt into the shot sleeve and transferring said melt to the die cavity; and
 - (b) mixing magnesium hydride as a blowing agent with the aluminium or aluminium alloy metal melt wherein the magnesium hydride is introduced with the aluminium or aluminium alloy metal into the shot sleeve or is introduced directly into in the die cavity; and
 - (ii) wherein foaming of the mixture of the aluminium or aluminium alloy metal and magnesium hydride takes place in the die cavity.

Claim 2 (previously presented)

2. The process according to claim 1, wherein the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing agent is formed by introducing the aluminum or an aluminum alloy metal melt and the blowing agent into the die cavity at the same time.

PATENT
512425-2070

Claim 3 (previously presented)

3. The process according to claim 1, wherein the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing agent is formed before introducing the mixture to the die cavity.

Claim 4 (previously presented)

4. The process according to claim 3, wherein the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing agent is formed in the shot-sleeve and is then introduced to the die cavity.

Claims 5 and 6 (cancelled).

Claim 7 (previously presented)

7. The process according to claim 1, wherein the die cavity is filled with the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing agent before foaming said mixture.

Claim 8 (cancelled).

Claim 9 (previously presented)

9. The process according to claim 1, wherein the die cavity is underfilled by a defined volume.

Claims 10-13 (cancelled).

Claim 14 (previously presented)

14. The process according to claim 1, wherein the process is a cold-chamber process.

Claim 15 (previously presented)

15. The process according to claim 1, wherein the process is a hot-chamber process.

Claims 16-18 (cancelled)

PATENT
512425-2070

Claim 19 (withdrawn)

19. A metal body obtained by the process according to claim 1.

Claim 20 (withdrawn)

20. The metal body according to claim 19, which is a component for a vehicle.

Claim 21 (withdrawn, currently amended)

21. The metal body according to claim 20, wherein the metal in the component is an aluminum ~~aluminium~~ alloy.

Claim 22 (withdrawn)

22. The metal body according to claim 19, which has a surface which is closed on all sides and a foam structure in the interior.

Claim 23 (withdrawn, currently amended)

23. A metal body obtained by the process according to claim 1 which has a surface which is closed on all sides and a foam structure in the interior.

Claim 24 (previously presented)

24. The process according to claim 1 wherein, the amount of magnesium hydride used is from about 0.01 to about 10% by weight, based on the aluminum or an aluminum alloy metal melt.

Claim 25 (previously presented)

25. The process according to claim 24, wherein the amount of blowing agent is from 0.01 to 10% by weight, based upon metal melt.

Claim 26 (previously presented)

26. The process according to claim 24, wherein the amount of blowing agent is from about 0.1 to about 10% by weight based upon metal melt.

PATENT
512425-2070

Claims 27 and 28 (cancelled)

Claim 29 (previously presented)

29. The process according to claim 1, wherein the magnesium hydride is autocatalytically produced.

Claims 30-45 (Cancelled).

Claim 46 (allowable)

46. A process for producing an aluminum or an aluminum alloy metal foam in a die-casting machine comprising a shot-sleeve and a die cavity which comprises foaming a mixture comprising an aluminum or an aluminum alloy metal melt and magnesium hydride as a blowing agent in the die cavity at a pressure at or greater than approximately 10^7 Pa.

Claim 47 (allowable)

47. The process according to claim 46 wherein the pressure is between 10^7 Pa to 10^8 Pa.